

Supporting Mental Health in Computer Science Students and Professionals

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ABSTRACT

Long hours, pressure to meet deadlines, lacking a sense of belonging, and fear of failure are just some of the stressors that affect Computer Science students and professionals alike, leading to burnout, anxiety, and depression. Although this issue is by no means unique to the field of computing, there is significant need for awareness and support around student mental health in the CS education community. In this timely and important session, panelists will discuss the mental health issues that affect CS students, present resources that are available to students and educators, and describe their efforts to create and foster a culture of understanding and support within their communities.

CCS CONCEPTS

• **Social and professional topics~Computing industry and professional topics~Computing education**

KEYWORDS

Mental Health; Mental Illness; Wellbeing; Wellness

1. SUMMARY

Long hours, pressure to meet deadlines, lacking a sense of belonging, and fear of failure are just some of the stressors that affect Computer Science students and professionals alike, leading to burnout, anxiety, and depression. A quarter of the world's population lives with some form of mental illness [1], and a 2015 UC-Berkeley study reported that nearly 50% of STEM graduate students live with depression [2]. Furthermore, recent research suggests that over 50% of those working in the tech community have been diagnosed with a mental illness [3], a statistic that may actually underestimate the problem because of stigmas in many cultures and communities around seeking mental health services, as well as lack of available resources.

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In addition to the prevalence of diagnosed mental illness, there are students who are undiagnosed, struggling with symptoms of mental illnesses but do not meet criteria for diagnosis, and those experiencing burnout (which presents like a mood disorder). Wherever a student falls on the spectrum of mental health, the need for support is evident.

Although this issue is by no means unique to the field of computing, all of this suggests a significant need for awareness and support around student mental health in the CS education community. However, while many CS educators recognize the importance of supporting their students' mental health many feel ill-equipped to do so, are unsure if their approaches are helpful to students, and are seeking a community of educators with whom they can share ideas.

In this timely and important session, panelists will discuss the mental health issues that affect CS students, present resources that are available to students and educators, and describe their efforts to create and foster a culture of understanding and support within their communities.

2. STRUCTURE

The panel will begin with a 10-minute presentation by the moderator to provide background information on mental health issues faced by professionals working in the tech industry and the challenges to mental health that CS students face. Each panelist will then introduce themselves and speak for up to five minutes about the initiatives they have taken at their institution to support their students' mental health, focusing on: incorporating mental health into course content; signaling that mental health is important to the instructor; creating an inclusive environment; and developing course policies that support students' mental health. This will be followed by 15 minutes of questions for the panelists that are posed by the moderator about the panelists' experiences and lessons learned, and the last 30 minutes of the session will involve audience Q&A, facilitated by the moderator.

3. JENNIFER AKULLIAN

Jennifer is a former clinical psychologist who focuses on individual and organizational growth in the tech community. Founder and executive coach at Growth Coaching Institute, she supports individuals, teams and organizations through coaching, trainings, and facilitated processes. Due to the needs in a demanding field, much of her work focuses on mental wellness and dealing with industry-specific burnout. Jennifer is a thought-leader and international speaker on the topic of mental health in tech, where she advocates to de-stigmatize mental illness and educates to increase individual and organizational wellness and performance. She has focused attention on the mental health of the CS student population at Stanford University in 2017 and SIGCSE 2018. Jennifer collaborates on the Open Sourcing Mental Illness (OSMI) research, which suggests a significant prevalence of diagnosed mental health issues among professionals working in the tech industry. Considering this research and performance expectations in the field, it is evident that emotional regulation, managing stress, avoiding burnout, and attention to overall mental health needs to be a priority for educators as their students work through challenging CS programs and enter a demanding industry as professionals. Jen looks forward to joining a new team of collaborators to discuss this topic at SIGCSE 2020.

4. ADAM BLANK

Adam's efforts center around destigmatizing discussions about mental health in the academic setting. He tries to signal to students that their mental health struggles are valid and okay to talk about by meeting with students as frequently as they want. In these meetings, Adam regularly discloses his own mental health struggles to students as they become relevant. He aims to exemplify that it is possible to be successful even though mental illness of any form can be overwhelming. Several years ago, Adam rearranged his course website to have a section on "Getting Help" front-and-center near the top of the home page. This section includes several mentions of mental and physical well-being and is intended to indicate to the students that mental health should be a priority over the course work. He has regularly given a "surprise" lecture on impostor syndrome and growth mindset in all his classes to begin regularizing discussing mental health. He found that this lecture had a profound impact on students' feelings about themselves and their feelings of belonging in the major.

5. LAUREN BRICKER

Lauren Bricker began her tenure as a faculty member at the University of Washington (UW) in the fall of 2017 after ten years teaching in a rigorous private high school. This school invested heavily in teacher professional development including a strong focus on diversity, equity, inclusion, and as well as mental health support (many students suffered from anxiety, stress, depression, sometimes as a result of academic pressures, whether self imposed or otherwise). The school had, among other things, an advisory system where the faculty monitored not only the

students' academic progress, but also their mental and physical well being. When a student struggles in this system, the advisor is able to call on the school's student support team for more comprehensive assistance. Upon joining the faculty at UW, in an effort to capture the student focused atmosphere of her high school teaching experience, as well as to indicate she was approachable for more than just academics, Lauren crafted and added sections on accessibility, accommodations, and wellness to her course documents. While seemingly small changes, the addition of these statements has had a positive impact on the culture of the courses, particularly in CSE 154.

6. LINDA DUHADWAY

Linda has been teaching Computer Science for over 18 years. She specializes in using research based teaching methods to improve the learning process and has seen much success in working with students in active and engaging ways. One of the most powerful changes in her interaction with students has come from an awareness of her own neurodiversity and mental health. Specifically, how they impact personal interactions inside and outside the classroom. This realization propelled Linda on a path to discover ways in which she could improve the learning environment for students who are also neurodiverse and/or managing mental health concerns. Being aware that we all engage in the world in unique and different ways can help us interact with students in ways that may not be natural or familiar but are more inclusive. Making small changes to how we present material and engage with students can minimize barriers and reduce triggers, creating a healthier learning environment.

7. CHRIS MURPHY

In Spring 2019, the CIS 350 Software Design & Engineering course at the University of Pennsylvania introduced a "TA for Wellness," whose role it was to distribute information about wellness and mental health-related resources and events through in-class announcements and discussion board postings, to organize mental health-related training for the twelve TAs, and to generally signal to the 202 students in the course that instruction staff deeply cared about their mental health. Additionally, the course included a discussion session on the issues faced by those living with mental illness in the tech industry. These direct, course-related interventions have been successful in creating an environment in which students feel comfortable discussing mental health, and that students struggling with their mental health will receive the support that they need in order to succeed. Additionally, it has encouraged student organizations such as Penn Women in Computer Science to include student mental health in their awareness and advocacy efforts and to create new wellness-focused events and initiatives.

REFERENCES

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